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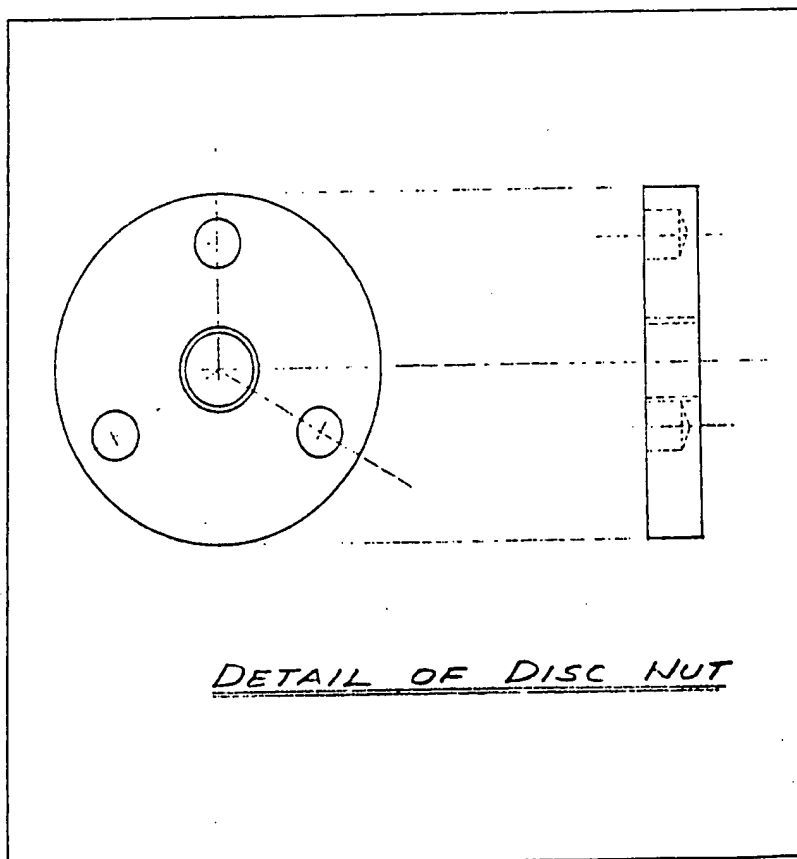
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(54) Disc nut and disc-headed bolt

(57) A nut or bolt head is formed as a disc which is provided in one face with two, three or four blind or through holes or depressions or slots, for engagement by a suitable tool. The nut may be applied to a conventional threaded rod or bolt, or to a disc-headed bolt, in order to secure one timber member to another or to secure a timber member to a metal one. The disc nut or disc-headed bolt

may replace the conventional nut or bolt whilst eliminating the need for any washer.

The disc nut and disc-headed bolt can significantly enhance the appearance of structural timber joint assemblies particularly when recessed partially below or flush with the timber surface. In the latter application it also has significant advantages as a deterrent to vandals in locations which are vulnerable to their attentions.



GB 2 082 709 A

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PATENT APPLICATION

2082709

PROJECT

DISC NUT & BOLT FOR USE
IN TIMBER STRUCTURES

PART

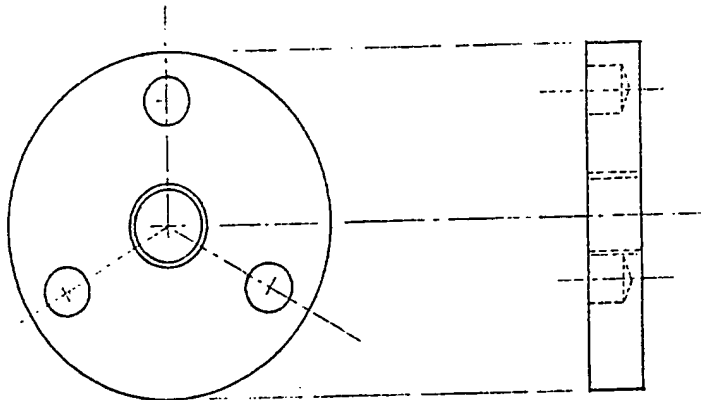
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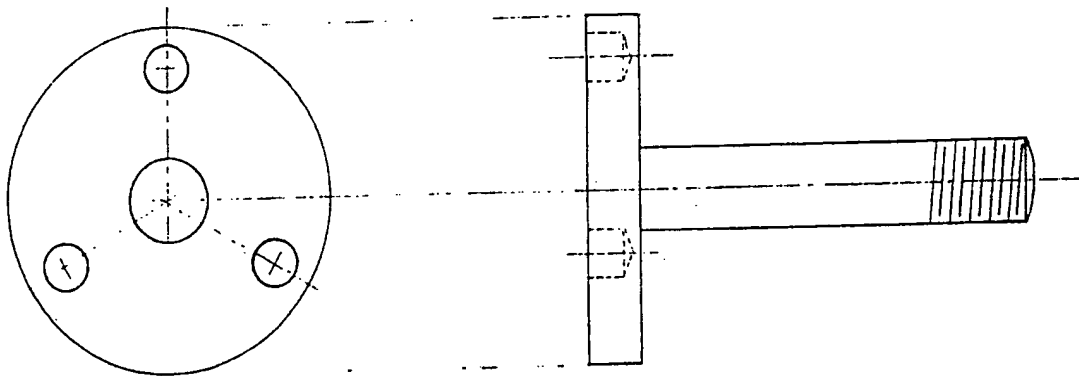
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DISC NUT MAY BE USED
WITH DISC BOLT BELOW
OR WITH THREADED ROD.

DETAIL OF DISC NUT



DETAIL OF DISC BOLT

SPECIFICATION

Disc nut & disc bolt for use in connecting timber structures.

The disc nut is a circular disc of metal with a
5 concentric threaded hole. In its face are three
stopped or through circular holes disposed equally
around the circumference on a common radius
and so arranged that a specially made tool can be
engaged with them for purposes of applying
10 torque in the plane of the disc. Alternatively two
holes, four holes or other suitable depressions or
slots may be formed in the face for the same
purpose.

The disc nut may be used in conjunction with a
15 threaded rod, an ordinary bolt or with a disc bolt
having a head of similar dimension and form to the
disc nut.

The disc nut and the disc bolt are for use
exclusively in connecting structural timber
20 components. They may be used alone or in
conjunction with timber connectors of the toothed
plate, split ring, shear plate or other pattern.

The disc nut replaces the ordinary hexagon or
square nut and washer and requires no washer. It
25 may be applied on the surface of the timber
component to project above it, or be partially or
fully recessed below the timber surface to
enhance the appearance of the assembly whilst
retaining its function in tightening and holding the
30 joint together.

The disc bolt is used in similar manner.

The finish of the disc nut and the disc bolt may
be self coloured as the parent metal, rough
machined, polished, painted, or plated according
35 to the appearance required and the environmental
conditions likely to obtain in service.

CLAIMS

1. The Disc Nut is a circular disc of steel with a
40 concentric threaded hole having in addition on one
of its faces three round stopped or through holes
disposed equally around and near to the periphery
on a common radius concentric with the central
threaded hole and so arranged that torque can be
applied to the disc in its place by a suitable tool.

45 The Disc Nut is used in conjunction with a
corresponding appropriately threaded round rod,
ordinary bolt or Disc Bolt having a head of similar
dimension and form to the Disc Nut the
combination being used alone or in conjunction
50 with timber connectors to join one timber member
to another or to connect a timber member to a
metal member. The Disc Nut is used in surface
contact with and for the purpose of connecting
timber members. The Disc Bolt is used in a similar
55 context.

2. As claimed in claim 1 but with 2, 4 or more

holes in the face of the Disc Nut.

3. As claimed in any preceding claim but with
notches or indentations on the perimeter of the
60 Disc Nut or without holes in face.

4. As claimed in any preceding claim but with
chamfered, radiused, bevelled or milled perimeter
edge.

5. As claimed in any preceding claim but
65 protected against corrosion by an application of a
different metallic coating.

6. As claimed in any preceding claim but
protected against corrosion by an application of
paint in one or more coats.

70 7. As claimed in any preceding claim but made
of non-ferrous metal or plastic or a combination of
metal and plastic materials.

8. As claimed in claims 1, 2, 3, 4, 5 and 7 but
with polished finish.

75 New claims or amendments to claims filed on
8.7.81.

Superseded claims 1—8.

New or amended claims:—

1. The Disc Nut is a circular disc of steel with a
80 concentric threaded hole having in addition on one
of its faces three round stopped or through holes
disposed equally around and near to the periphery
on a common radius concentric with the central
threaded hole and so arranged that torque can be
applied to the disc in its plane by a suitable tool.
85 The Disc Nut is used in conjunction with either a
conventional threaded round rod, or ordinary bolt
the combination being used alone or in
conjunction with timber connectors to join one
90 timber member to another or to connect a timber
member to a metal member. The Disc Nut is used
in surface contact with and for the purpose of
connecting timber members.

2. As claimed in claim 1 but with 2, 4 or more
95 holes in the face of the Disc Nut.

3. As claimed in any preceding claim but with
notches or indentations on the perimeter of the
Disc Nut or without holes in face.

4. As claimed in any preceding claim but with
100 chamfered, radiused, bevelled or milled perimeter
edge.

5. As claimed in any preceding claim but
protected against corrosion by an application of a
different metallic coating.

105 6. As claimed in any preceding claim but
protected against corrosion by an application of
paint in one or more coats.

7. As claimed in any preceding claim but made
of non-ferrous metal or a combination of metal
110 and plastic materials.

8. As claimed in claims 1, 2, 3, 4, 5 and 7 but
with polished finish.